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SIMBIOS Project 2001 Annual Report

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Chapter 1

An Overview of SIMBIOS Project Activities and Accomplishments During FY01

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In FY01, the SIMBIOS Project brought a number of activities to fruition and laid the groundwork for FY02 initiatives. With SeaWiFS continuing to perform well, the Terra platform and MODIS launched in December 1999, and several other global missions scheduled for launch (e.g., the Aqua platform with MODIS in 2002, the ENVISAT mission with MERIS in 2002, and ADEOS-II with GLI and POLDER in 2002), the first real opportunties to merge global data sets can be pursued. NASA HQ approved a three-year continuation of the science team (2001-2003) under an NRA and the Project Office. As it is taking some time for the MODIS team to work through the initial on-orbit processing issues, data merger-related activities within the Project Office have been in the development of data merging algorithms and software to read MODIS, development of capabilities for working with multiple global data sets in the future (i.e., OCTS-GAC reprocessing) and supporting the characterization of OSMI. These activities and accomplishments are described below.

SIMBIOS Science Team Support

a. The fifth science team meeting was held in Baltimore in January 2002 with a substantial US (SIMBIOS and MODIS PIs) and international participation, with official representation from OCTS, POLDER-I and II, MOS, MERIS, GLI, and VIIRS misssions. During the meeting the team addressed atmospheric correction and bio-optical algorithms, a MODIS data merging plan for 2002, uncertainty budget and sources from in situ observation, SeaWIFS re-processing, protocols updates and international collaborations. The agenda, presentations, minutes and recommendations are posted at http://simbios.gsfc.nasa.gov/Info/
b. Under a SIMBIOS NRA released in late 1999, a new science team was selected and has been funded under contracts or interagency agreements (2000-2003). The initial team consists of 19 U.S. and 12 international investigations with additional international investigations to be added as post-NRA proposals are received and accepted (i.e., Australian and Korean proposals). Agreements with the international team members were initiated by NASA/HQ in Fall 2000 and most of them have now been signed.
c. In October 2001 the SIMBIOS Project management conducted team performance evaluations on all investigations. Formal evaluations of investigations funded through contracts are required by the NASA Procurement Office. All investigations, with the exclusion of one, where renewed for the second year (2002).

Satellite Data Characterization

a. KOMPSAT/OSMI characterization work was done in collaboration with KARI. Joint scientific papers were presented at the Fall AGU meeting in San Francisco (Franz and Kim, 2002; Kim et al. 2002). In addition, KARI requested assistance from the Project to identify a schedule to record onboard OSMI data. Our recommendation is now implemented.
b. The Project is hosting a NASDA representative (Mr. Tanaka) for one year (June 2001-June 2002) at NASA Goddard Space Flight Center to assist in the GLI preparations. The Project worked on a document entitled ”Instrument characterization of the GLI”, delivered at the GLI science team meeting in Tokyo (November 2001).

Satellite Data Analyses

a. OCTS GAC data reprocessing was completed. This was a very productive collaboration effort with NASDA and Japanese scientists. A scientific presentation was given at the Fall 2001 AGU meeting in San Francisco (Tanaka et al. 2001). OCTS-GAC data is available through the GSFC DAAC, the SIMBIOS Project and NASDA.